

## **REMARKS**

This is a full and timely response to the outstanding final Office Action mailed November 3, 2005. In the Office Action claims 1-4, 6, 9-11, 13, 41-44, 46-48, and 50 have been preliminarily rejected under 35 U.S.C. §102(b) as allegedly being anticipated. Claims 5, 12, 14-16, 18-33, 35-37, 39, 40, 45, 49, and 51-54 have been preliminarily rejected as allegedly being obvious. In addition, claims 8, 17, 34, 38, and 55 have been objected to, while claims 56-59 have been allowed.

Upon entry of the present response, claims 8, 17, 47, and 55 have been cancelled, without prejudice, claims 1, 24, 41, 46, and 56 have been amended, and claims 1-6, 9-16, 18-46, 48-54, and 56-59 remain pending.

## **EXAMINER INTERVIEW**

On February 8, 2006, Examiner Mei, the inventors, and their attorney conducted an Examiner Interview to discuss differences between Hori, et al. (U.S. pat. 5,550,925, hereafter, “Hori”) and the claims of the presently pending application. The Applicants and their Attorney wish to express their sincere appreciation for the time that Examiner Mei spent during the Interview.

During the Examiner Interview, the inventors and their Attorney made it clear that Hori was lacking at least one of the main elements of independent claim 1, specifically, that Hori did not disclose a quality factor, and most importantly that Hori did not disclose, teach, or suggest a variable filter having a quality factor that is controlled in response to a control signal, while the cutoff frequency remains fixed. The Applicants believe that this important issue was resolved and agreed upon by all parties in the

Interview. During the conversation, Examiner Mei seemed to indicate that it would be beneficial for the Applicants to file the current amendment to independent claim 1, thus, the Applicants respectfully request that Examiner Mei carefully consider the present amendment to independent claim 1 and independent claims 24, 41, and 56 alike.

**REJECTIONS OF CLAIMS 1-6, 9-16, and 18-54**

In the application, claims 1-6, 9-16, and 18-54 have been rejected for either being allegedly anticipated by Hori, or being allegedly obvious in light of Hori or in light of Hori in view of a different reference. As was expressed during the examiner Interview, Hori does not disclose, teach, or suggest the element of a variable filter that has a quality factor that is controlled in response to a control signal, while the cutoff frequency remains fixed.

Independent claims 1, 24, 41, and 56 have been amended to make the abovementioned more clear in the claims. Since Hori does not disclose, teach, or suggest the element of a variable filter that has a quality factor that is controlled in response to a control signal, the Applicants respectfully request allowance of the presently pending claims 1-6, 9-16, 18-46, 48-54, and 56-59. Specifically, since claims 1-6, 9-16 and 18-23 depend on independent claim 1, claims 25-40 depend on independent claim 24; and claims 42-46 and 48-54 depend on independent claim 41, the dependent claims contain all limitations of their respective independent claims. Since independent claims 1, 24 and 41 should be allowed, as argued above, their dependent claims should be allowed as a matter of law for at least this reason. In re Fine, 5 U.S.P.Q. 2d 1596, 1628 (Fed. Cir. 1988).

**OBJECTION TO CLAIMS 8, 17, 34, 38, and 55**

In the Office Action, claims 8, 17, 34, 38, and 55 have been objected to as being dependent upon a rejected base claim, but being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Due to claims 8, 17, and 55 being replaced by claims 57, 58, and 59, respectively, which have been allowed, claims 8, 17, and 55 have been cancelled.

The Applicants respectfully submit that since claims 34 and 38 depend on independent claim 24, claims 34 and 38 contain all limitations of independent claim 24. Since independent claim 24 should be allowed, as argued above, pending dependent claims 34 and 38 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q. 2d 1596, 1628 (Fed. Cir. 1988).

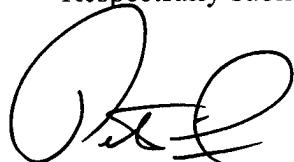
The Applicants also acknowledge allowance of claims 56-59 and thank the Examiner for acknowledgment of such allowability.

**CONCLUSION**

In light of the foregoing amendments and for at least the reasons set forth above, Applicatns respectfully submit that all objections and rejections have been traversed, rendered moot and/or accommodated, and that presently pending claims 1-6, 9-16, 18-46, 48-54, and 56-59 are in condition for allowance. Favorable reconsideration and allowance of the present application and the presently pending claims are hereby courteously requested. If in the opinion of the Examiner, a telephonic conference would

expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (603) 627-8134.

Respectfully submitted,

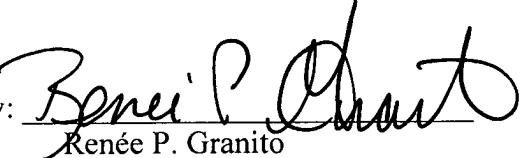


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I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: Mail Stop AMENDMENT, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on February 27, 2006 at Manchester, New Hampshire.

By:   
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